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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,108

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Ulf Dietrich

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EXAMINER

LEE, DORIS L

ART UNIT

PAPER NUMBER

1796

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DELIVERY MODE

06/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,108	Applicant(s) DIETRICH ET AL.	
	Examiner Doris L. Lee	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04292009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 23, 2009 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 21 and 30** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 21 and 30, applicant refers the examiner to the examples in the specification for support of the new claim. The examples do provide support that embodiments of the claimed invention are soluble in an aqueous alkali solution, however, does not provide support that the polymer is insoluble in water. Appropriate correction is required.

Art Unit: 1796

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 21 and 30** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 21 and 30, the limitations "water" and "aqueous alkali" do not provide enough information to differentiate between the two. For example, water can be slightly basic, which would read on both "water" and "aqueous alkali" and the polymer can not have both solubility and insolubility within the same aqueous medium.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 16-23, 25, 27, and 29-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hirata et al (EP 0 792 850 A1)**.

Regarding claim 16-20 and 31-32, Hirata teaches a copolymer which is used in cement (Abstract) which has

- (component a) 5-90% by weight (page 3, lines 5-15) of a carboxylic acid such as acrylic acid or methacrylic acid (page 7, lines 30-35)

Art Unit: 1796

- (component b) 0-50% by weight of another monomer (page 3, lines 17-20) such as 2-methyl propane sulfonic acid (meth) acryl amide and (meth) allyl sulfonic acid (page 7, line 44)
- (component c) 5-90% by weight of a first polyalkylene glycol (meth)acrylate (page 2, line 30-45) in which can have an oxyalkylene group of 2, therefore the repeat unit would be a polyethylene glycols. The number of repeat units ranges from 1-97 (page 2, lines 45) and the terminal group can be an OH or an OR, where R can be an alkyl group having 1-22 carbons (page 2, line 45).
- (component d) 5-90% by weight of a second polyalkylene glycol (meth) acrylate in which the polyalkylene glycol repeat units can be homopolymers of C3 and C4 oxyalkylene groups (page 2, line 47 - page 3, line 5) or mixtures thereof, the repeats numbering 4-100 (page 5, line 5), terminal group can be an OH or an OR, where R can be an alkyl group having 1-22 carbons (page 3, lines 1-5).

While it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03. Case law holds that “[i]f an applicant contends that additional steps or material in the prior art are excluded by the recitation of ‘consisting essentially of,’

applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention." *In re De Lajarte*, 337 F.2d 870, 143 USPQ 256 (CCPA 1964).

Regarding claim 21, Hirata teaches that the monomer used as component d of the instant claim can be methoxy polyethylene glycol (poly) propylene glycol mono(meth)acrylate (Page 7, lines 17-25), thus teaching a polyethylene end capped polypropylene glycol mono(meth)acrylate.

Although Hirata teaches that the total number of glycol repeat units is from 4-100 (page 7, line 29), it fails to teach the exact number of repeat units of the polyethylene glycol or the polypropylene glycol.

However, it is well known in the art to optimize result effective variables such as the number of repeat units in the polyoxyalkylene glycol. See MPEP 2144.05. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have optimized the relative repeat units of polyoxyethylene glycol and the polypropylene glycol, and the motivation to so would have been, as Hirata suggests, to change the water reducing rate and the stereo repulsion and hydrophilicity (Page 7, lines 25-30).

Regarding claim 22, Hirata also teaches that the 0 – 50 % by weight monomer (page 3, lines 17-20) can be esters of aliphatic alcohols, such as benzyl methacrylate (page 7, line 46).

Regarding claim 23, as Hirata teaches all the elements of the claimed invention, It is therefore inherent that the prior art composition as the desired storage modulus G'

Art Unit: 1796

and loss modulus G" since such properties are evidently dependent upon the nature of the composition used. Case law holds that a material and its properties are inseparable. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding claim 25, Hirata teaches that the dispersant of claim 16 is used in a hydraulically settable mortar composition (Abstract).

Regarding claim 27, Hirata teaches that the dispersant of claim 16 is used in a construction chemical composition which comprises Portland cement (page 15, line 17).

Regarding claim 29, since Hirata teaches the same composition as instantly claimed, it is therefore inherent that the prior art composition has the desired plasticizing action since such a property is evidently dependent upon the nature of the composition used. Case law holds that a material and its properties are inseparable. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding claim 30, since Hirata teaches the same composition as instantly claimed, it is therefore inherent that the prior art composition has the desired solubility in various aqueous medium since such a property is evidently dependent upon the nature of the composition used. Case law holds that a material and its properties are inseparable. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

8. **Claims 24 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hirata et al (EP 0 792 850 A1)** in view of **Haerzschel et al (US 6,166,113)**.

The discussion regarding Hirata in paragraph 8 above is included here by reference.

Regarding claims 24 and 26, Hirata teaches the claimed polymeric dispersant (please refer to the rejection of claim 16) and also teaches that the polymeric dispersant can be in an aqueous solution (page 8, lines 3-20), however, fails to teach a process for spray drying the dispersant with a polymer dispersion and an atomization aid.

Haerzschel teaches a polyvinyl alcohol stabilized by vinyl ester-acetate dispersion (col. 4, lines 5-15 and (col. 3, lines 45-60) are added as a protective colloid/atomization aid (col. 4, line 14) into which dispersants can be added (col. 4, line 58) and can be made into powders by spray drying (col. 4, lines 1-5).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the polyvinyl alcohol stabilized vinyl ester acetate protective colloid as taught by Haerzschel with the dispersant of Hirata in a spray drying process of Haerzschel. One would have been motivated to do so in order to receive the expected benefit of obtaining a highly flexible building compositions with have good strength and a significantly higher extensibility (col. 2, lines 20-25). They are combinable because they are both concerned with the same field of endeavor, namely dispersants in building materials.

9. **Claim 28** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Hirata et al (EP 0 792 850 A1)** in view of **Debus et al (US 4,137,088)**.

The discussion regarding Hirata in paragraph 8 above is included here by reference.

Regarding claim 28, although Hirata teaches that the dispersant of claim 16 is used in a construction chemical composition which comprises Portland cement (page

Art Unit: 1796

15, line 17), it fails to teach that the composition is a self-leveling floor filler or a flowable screed.

Debus teaches that a composition which is a plasticizing water containing, setting building materials (Abstract) which can be made into a flowable screed (col. 4, line 65).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the water content of Hirata in order to obtain a flowable screed as taught by Debus. One would have been motivated to do so in order to receive the expected benefit of obtaining a composition with the flow rate appropriate to certain applications. They are combinable because they are concerned with the same field of endeavor, namely plasticizers in cementitious materials.

Response to Arguments

10. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doris L. Lee whose telephone number is (571)270-3872. The examiner can normally be reached on Monday - Thursday 7:30 am to 5 pm and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Doris L Lee/
Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796